

Abstract of the Disclosure

A stepper motor control circuit reduces ripple current by applying both fast and slow current decays to a motor phase when current is being reduced in the motor phase while following a falling current waveform. The control circuit uses an initial fast decay to reduce a winding current and then switches to a slow decay until a winding current is sampled again. The control circuitry samples a winding current and compares the sampled current to a reference current to determine if current is to be applied or reduced using fast and/or slow decay methods. Different phase current sample circuits allow either constant current sensing or selective current sensing.